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## Animal-Assisted Play: A Strategy for Promoting Children's Physical Activity Play

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### Cover Page Footnote

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## **Animal-Assisted Play: A Strategy for Promoting Children's Physical Activity Play**

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### **Dedication**

The authors dedicate this article to Bernard D. Boisvert, D.V.M.

### **Abstract**

This article explores how animal-assisted play might be used as a strategy in playwork to support children's right to play, enrich their play experiences, encourage their physical activity play and better their health and life quality. Children's interactions with pets or companion animals in free play or animal-assisted activities (AAA) can yield therapeutic benefits by increasing physical and mental health and well-being and also offer possibilities for more outdoor play, agency, risk-taking, fun and enjoyment, as well as high-quality play experiences. We invite playwork practitioners to consider the important role of animals in children's lives and the potential value of animal-assisted play in creating opportunities for enriching children's play and life quality.

*Keywords:*

playwork; play; physical activity; pets; companion animals; child obesity; health; COVID-19

## **Animal-Assisted Play: A Strategy for Promoting Children's Physical Activity Play**

In recent decades, children's play and physical activity have dramatically decreased. (Dodd et al., 2021). Now more than ever, children have virtually unlimited access and exposure to digital media, video games, television, and technological innovations. Increased exposure to screen time is associated with reduced play involving physical activity (Pagani et al., 2010; Peck et al., 2015; Wen et al., 2014). The rising popularity of digital media and technology has led to a worldwide decline in both indoor and outdoor play (Clements, 2004; Gray, 2011; Lewis, 2017; Singer et al., 2009). Reduced play has likely contributed to deficits in children's physical and mental health and well-being (Frost, 2012; Gray, 2011).

In the past year, the COVID-19 pandemic has reduced children's access to and opportunities for play particularly in outdoor settings, e.g., public parks, adventure playgrounds (de Lannoy et al., 2020; Howard, 2020; King, 2020, 2021). Restrictions such as shelter-in-place orders, closures of schools and before- and after-school playwork settings and social distancing mandates have all limited children's participation in play and physical activity. Early on in the pandemic, these limitations were speculated to increase indoor sedentary behaviours, physical inactivity and unhealthy weight gain (Rundle et al., 2020). This has since been confirmed, with children's outdoor play and physical activity reduced during the pandemic and the risk of child obesity has increased (Dunton et al., 2020; Graber et al., 2020; Moore et al., 2020; Pietrobelli et al., 2020; Pombo et al., 2020).

### **Playwork, Play, and Physical Activity Play**

Children need, value, and have the right to play (Lester & Russell, 2008; Manwaring & Taylor, 2006). Protecting children's right to play as a vehicle for their agency and voice is

central to playwork practice (King & Newstead, 2019a, 2019b; PPSG, 2005; Play Wales, 2015). There many benefits of play and playwork, including increased playful physical activity (Lester & Russell, 2008; Manwaring & Taylor, 2006). Playwork interventions can enhance children's adaptive response to adversity and ability to cope effectively in the aftermath of natural disasters, e.g., earthquakes (Bateman et al., 2013; Kinoshita & Woolley, 2015). In a similar vein, playwork practitioners have argued that the COVID-19 pandemic has underscored the importance of play and the creativity of playwork in this critical time (Howard, 2020; King, 2020, 2021).

In addition to enhancing adaptation and coping, observational studies have identified the health and well-being benefits of children's outdoor play: increased physical activity levels, better stress management and self-regulation skills, prosocial skills, confidence, resilience, creativity and enjoyment of nature (Brussoni et al., 2015; Maxwell et al., 2008; Staempfli, 2009; Tremblay et al., 2015). Children's outdoor play allows for adventurous play and, in turn, exploration of age-appropriate risks and feelings of excitement and thrill. Play allows children to tolerate better uncertainty and ambiguity, as well as coping with fears and anxieties (Dodd & Lester, 2021). Greater outdoor playtime promotes better mental health (Piccininni et al., 2018). According to Tremblay et al. (2015): "Access to active play in nature and outdoors—with its risks—is essential for healthy child development. We recommend increasing children's opportunities for self-directed play outdoors in all settings—at home, at school, in child care, the community and nature" (p. 6476). Research has shown that physical play and active play in either outdoor or indoor settings offer opportunities for bodily movement, energy expenditure, and physical health and well-being (Sandford et al., 2015; Sando, 2019; Sobo, 2014; Storli & Sandseter, 2019). Independent outdoor play and duration of outdoor playtime are strongly

associated with greater physical activity levels, better cardiorespiratory fitness, and healthier body weights in children (Aggio et al., 2017; Faulkner et al., 2015; Gray et al., 2015; Kimbro et al., 2011; Wen et al., 2009). Pellegrini and Smith (1998) state: “Physical activity play, specifically, may involve symbolic activity or games with rules; the activity may be social or solitary, but the distinguishing behavioral features are a playful context, combined with [...] moderate to vigorous physical activity, such that metabolic activity is well above resting metabolic rate” (p. 577). Ethnographic data on outdoor physical activity play have suggested this type of play might be useful for child obesity prevention (Barron, 2013). In this paper, we argue that animal-assisted play might be a strategy for promoting physical activity play, thereby improving health and well-being, and lessening child obesity during the COVID-19 pandemic.

## **Pets and Animals in Children’s Play Activity**

### **Pets and Companion Animals**

Pets and companion animals are important in children’s lives (Melson, 2001; Melson & Fine, 2010). During the COVID-19 pandemic, children are likely faced with uncertainty, daily stresses/transitions, disrupted family/friend relationships due to social distancing measures and decreased opportunities for outdoor play, especially physical activity play. Pets and companion animals, as a special family member or friend, can offer children a secure, safe base during stressful, uncertain times such as global threats (Walsh, 2009a, 2000b). As playmates, animals and pets might have even greater importance in children’s lives by creating possibilities for outdoor and indoor active play. A pet can spark a child’s desire to move freely in the garden or home—to run, jump or dance with abandon—or exhibit other high-energy bodily expressions of fun. In pet play, children have an outlet for built-up physical energy when confined to the home.

Reviews cite evidence of the physical, mental, and social health benefits for children who own and/or interact with companion animals, with the literature largely supportive of their health advantages (Barker & Wolen, 2008; Endenburg & van Lith, 2011; Jalongo, 2015; O’Haire, 2010; Purewal et al., 2017; Walsh, 2009a, 2009b; Wells, 2009). The mere presence of an animal in a child’s life, its spontaneous behaviours and interactions with a child, afford natural opportunities for play, fun, and therapeutic benefits (Melson, 2001; Melson & Fine, 2010). Children have a natural affinity and curiosity for live animals and are often drawn to them (Fawcett & Guillone, 2001). One experiment confirmed that preschool children talked more about, asked more questions, and interacted more, with live animals than similar toy animals in their free play (LoBue et al., 2013). A study on the play patterns of preschool children in home spaces found that pets were involved in children’s process of play, with the observation that: “In some cases play occurred at the same time as, or directly after [...] pet care. After feeding baby goats, three children aged three to five began a game of ‘chase’ around the sandbox. Each (including the goat) took turns as leader” (Squibb & King, 1996, p. 202).

Children can own a range of pets such as dogs, cats, birds, fish, reptiles, amphibians, and small mammals as well as horses, ponies and farm animals (Hawkins & Williams, 2017; Marsa-Sambola et al., 2015, 2016; Muldoon et al., 2015, 2019a; Westgarth et al., 2013). Children’s relationships and bonds with pets and companion animals have significance for their development, health and well-being (Melson, 2001, 2003; Melson & Fine, 2010; Walsh, 2009a, 2009b; Wells, 2009). Pet ownership has been positively associated with physical and mental health and quality of life among children, with a positive influence on social and emotional aspects (Marsa-Sambola et al., 2015, 2016, 2017).



Children generally feel emotionally connected to their pets, particularly dogs—the most commonly identified “favourite” pet and the pet to which they are most strongly bonded—compared to bonds with other pets, particularly those without fur (Muldoon et al., 2019a, 2019b). This strong child-dog bond extends from early childhood to late adolescence, offering security and stability over the course of development (Jalongo, 2015; Muldoon et al., 2019a, 2019b).

Younger children are more emotionally connected to pets, regarding them as playmates supportive of their play and positive emotions (Endenburg et al., 2014; Muldoon et al., 2019a, 2019b). Young children tend to regard pets as a constant “best friend,” offering companionship, reciprocating their emotions, and sharing in their enjoyment of play and fun (Endenburg et al., 2014; Muldoon et al., 2015, 2019a; Westgarth et al., 2013). Young children often talk about pets and companion animals with enthusiasm and excitement, expressing positive experiences of pets as part of the family, and the pet’s inherent playfulness, love, affection, comfort, and support (McNichols & Collis, 2001; Muldoon et al., 2015; Tipper, 2011). For example, one young girl described her pet play, stating: “...I have a hamster, I like her a lot because she is pretty, and I can play with her when I have nobody else to play with, and when I am upset I go to play with her [...] and she is comfy” (Morrow, 1998, p. 221).

Compared to younger children, older children tend to see pets as “listeners” or confidants of secrets and companions supportive of their independent mobility (Endenburg et al., 2014; Muldoon et al., 2019a, 2019b). For older children, pets and companion animals, particularly dogs, can facilitate social exchanges and new friendships, in turn, extending social networks in play activities, as well as outdoor play places, spaces, and geographies (Barron, 2013; Muldoon et al., 2015; Tipper, 2011). Dog ownership is associated with greater outdoor play and dog-walking by children, increasing their physical activity and fitness levels, and reducing their risk

of child obesity (Boisvert & Harrell, 2014, 2015; Christian et al., 2013, 2014; Engelberg et al., 2016; Martin et al., 2015; McMinn et al., 2011; Westgarth et al., 2014, 2017). For example, studies show that young children in dog-owning families tend to have more physical activity via dog-walking, are less likely to be overweight or obese than those children in families without a dog (Salmon et al., 2010; Timperio et al., 2008). While dog ownership and dog-walking by young children are potential strategies for increasing physical activity and reducing risk of child obesity (Boisvert & Harrell, 2014; Salmon & Timperio, 2011), the physical benefits of child-dog interactions are not limited to this activity. Dog play, e.g., running around with the dog or throwing a ball or stick for the dog to fetch, may also be physical activity play for young children. A study of pet play and dog-walking among young children found that pet play occurred more often than dog-walking, and that pets facilitated active play and physical activity (Martin et al., 2015).

Pet play and pet care activities, e.g., feeding, grooming, cleaning, can foster children's social enjoyment, caring, friendship, and prosocial behaviour, with positive outcomes such as reduced aggression, increased empathy and compassion and better mental health, well-being, and quality of life (Daly & Suggs, 2010; Hawkins & Williams, 2017; Jalongo, 2014; Muldoon et al., 2015, 2016). Positive interactions with pets during free play or free time activities, e.g., leisurely stroking a pet's fur, can help children with emotion regulation, empowering them to deal with stress and overcome challenges (Boyer, 2014).

### **Animal-Assisted Activities (AAA)**

Increasingly, pets and companion animals are being used in practice work because they have been found to be therapeutically beneficial to children (Chandler, 2012; Fine et al., 2010; Kruger & Serpell, 2010). The general term animal-assisted intervention (AAI) encompasses a

broad range of animal-assisted activities (AAA) and animal-assisted therapy (AAT), reflecting the breadth and depth to which pets and companion animals are used in practice work (Kruger & Serpell, 2010). AAA/AAI recognizes how animals, because of their innate appeal to children, invite children to make contact, interact, and connect emotionally with animals (Chandler, 2012). AAA/AAI involves "...the use of animals as living, interactive tools that can be used to help people see both themselves and their world in new ways, and to add new skills and responses to their behavioral repertoire" in a non-threatening, supportive environment (Kruger & Serpell, 2010, p. 41). AAA refers to informal activities, e.g., pet visits, that engage children individually or as a group in outdoor/indoor settings (Chandler, 2012; Kruger & Serpell, 2010). AAA tend to use trained/certified animals or untrained pets, and have general objectives, ranging from attendance to training and caring for animals (Chandler, 2012; Kruger & Serpell, 2010). For playwork, an AAA objective can simply be supporting children's right to play via fun, exciting physical activity play with an animal, for example, at an adventure playground or indoor play centre.

Reviews suggest AAA/AAI are therapeutic for children, notably those with special needs (Barker & Wolen, 2008; Chandramouleeswaran & Russell, 2014; Endenburg & van Lith, 2011; Esposito et al., 2011; Matuszek, 2020; O'Haire, 2010). As therapeutic aides for children, animals can be instrumental in alleviating children's stress and anxiety and increasing their stress coping and resilience in challenging life events such as global threats (Chandler, 2012; Kruger & Serpell, 2010; Walsh, 2009a, 2009b). During the COVID-19 pandemic, animals can be therapeutic for children as playful interactions create opportunities for physical activity play, allow expressions of their agency and voice in play activity, and alleviate stresses and anxieties in the process of play. It is important to note that despite AAA's therapeutic benefit for children,

these informal activities are not focused on supporting children's right to play or creating opportunities for child-animal interactions as a play process. This gap is one that the playwork field could fill, with animal-assisted play—free play with pets and/or AAA—as a way to enrich children's play.

### **Animal-Assisted Play as Physical Activity Play**

Animal-assisted play creates opportunities for children's physical activity play. Animals, especially dogs, often have a natural inclination for impromptu, unscripted play, e.g., chasing a ball. Animal interactions can evoke children's enthusiasm and excitement for physical activity play consisting of spontaneous bodily movements, high-energy expenditure, or physical exertion. Bodily gestures of posturing, running or chasing starts by children or animals—pet dogs or cats, or farm animals such as miniature horses or goats—are invitations for physical activity play. Outdoor or indoor play activities with animals, e.g., dogs or cats, can include: tug-of-war, ball fetch, string-on-a-stick-catch, interactive puzzles using garden or home objects, hide-and-seek games, obstacle courses, stairway sprints, or hallway dashes. These child-animal interactions are examples of play involving moderate to vigorous physical activity. Other examples of play, albeit lower-intensity physical activity due to type of animal, can involve “chasing-catching” or zigzagging behind pet rodents, e.g., gerbils, hamsters, or reptiles, e.g., turtles, lizards, as they roam outdoor or indoor spaces. An AAA rabbit visit at a play centre might inspire a child to “run-hop,” skip, leap, or jump around the animal as it explores. Other examples of play can include children making body motions of “swimming” with fish in tanks or ponds, “flying” with caged or wild birds, or tree-climbing like squirrels at parks. Any number of variations in interaction can lend to animal-assisted play as a strategy for increasing physical activity play.

Animal-assisted play, in addition to creating opportunities for physical activity play, can also increase children's awareness of bodily senses and capabilities. Free play, including "dizzy play," and rough-and-tumble play, involves various spontaneous bodily movements, e.g., climbing, jumping, twisting, swinging, running, somersaulting, twirling, tumbling, which can increase children's spatial awareness, physical coordination, and balance (Hewes, 2014). For example, children can spin around, roll around, climb over an animal, or pretend to fight or wrestle with an AAA trained dog. Children's physical activity play with animals can involve chaotic or frenzied "messing up" of play spaces with objects or toys, as well as running or chasing. Games of ordering, disordering, and re-ordering along with movement, e.g., toy tidy with a dog or cat, can help children create deliberate chaos and uncertainty, then re-organize it physically, symbolically, and cognitively. This "dis/organized" play enables children to feel a sense of order in disorder, and to have a release of bodily energy and tension.

Free play is generally characterized by children's freedom to choose to play as well as the direction or control of play (Hewes, 2014). Children can explore what it means in the moment to be in control of themselves and their bodily movements, absent the responsibility of having to anticipate or "know" the outcomes of their actions with their animal co-players. Children deal with power dynamics in human play in ways that can influence their choices, decisions and negotiations in play (Canning, 2019). In human play, children can learn how to "be themselves" in imaginative ways (Henricks, 2008). This is even more so in animal-assisted play, which can permit children to imagine, dream, fantasize, pretend, or express themselves in uncensored ways. With human play, specifically interactions in playwork, children are invited into a space of "becoming-players," which can "...together provide moments of intensities, simultaneously moving between what is and what might become, producing new realities for children and staff"

(Kane & Petrie, 2014, p. 29). Animal co-players might support playwork by allowing for the unfolding, ever-changing, and expanding of play.

Free play alleviates stresses and anxieties by temporarily freeing children from the reality of adversity, allowing them to express and regulate their emotions, and create an alternate reality (Hewes, 2014). It can involve imaginary pets in the absence of real-life ones, or symbolic play with pets or trained animals, with children pretending to be animals themselves or engaging with pets as if they were humans, e.g., having a costume dance party. Play is a place in children's bodies and minds where they can escape reality as a means to feel temporarily in control of the world, for brief moments or periods of time, allowing children to create and inhabit a distinctive world of their own making (Henricks, 2008; Hewes, 2014). This allows children to release or rid themselves, through bodily movements, of the cares, worries, fears, or anxieties in their everyday lives so that they can focus on the present moment of fun and enjoyment in their play with animals and be wholly absorbed by it. Play with pets or AAA is therefore a hopeful place where, for a time with a furry, four-legged "best friend," or other pet or animal, children can be or do anything; anything and everything is possible.

### **Considerations, Caveats, and Conclusions**

We conclude this article by being mindful that child obesity has been declared a public health crisis (Lobstein et al., 2004). Once a child becomes overweight or obese, they are likelier to maintain this heavier weight into adulthood (Llewellyn et al., 2015; Simmonds et al., 2015). During the COVID-19 pandemic or its aftermath, there may be an even greater need for strategies to reduce risk of child obesity. One strategy is animal-assisted play. As we have discussed, animal-assisted play offers opportunities and health benefits, for children, including: more bodily movement and energy outlets; having fun and feeling it is valuable because it is

intrinsically and behaviourally rewarding; a sense of freedom, autonomy, and control; adaptive coping responses to adversity and stressors; positive emotions of happiness, joy, and hope; and expressions of agency and voice, and the right to play.

The playwork field can play a key role in this aim by drawing on its creativity, with playwork practitioners considering how animal-assisted play might preserve children's right to play and have fun, while at the same time promoting their physical activity play, health, and well-being. The examples of animal-assisted play activities we put forth are intended to help playwork practitioners support children's right to play.

We encourage playwork practitioners to obtain information or training on the use of pets in play or AAA to assist them in managing risks to children and animals alike, e.g., aggression, injury (Melson & Fine, 2010). Similarly, it is important that playwork practitioners are trained in and carry out their own risk-benefit assessments in the light of any current risks of COVID-19 or other infectious diseases.

Finally, we encourage playwork practitioners to consider studying the potential value of animal-assisted play for promoting physical activity play. Scientifically exploring the nuances of child-animal interactions in play can bolster knowledge about the process of play. This appears to be an important avenue for future research in playwork as it carries practical significance for playwork practitioners in supporting children's play and would fill a gap in the literature about how children play with pets or animals on a granular level.

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